

REMARKS

The Examiner objected to claims 32-34. To expedite prosecution of the present application, Applicants amended independent claim 32 in accordance with the Examiner's comments.

Applicants amended independent claim 1 to clarify floor status information is included in a message generated in accordance with a session description protocol, and that sending the session description protocol message including the floor status information between a communication system and a user equipment avoids having to send additional messages to communicate the floor status information between the communication system and the user equipment. Support for the clarification is provided throughout the present application, including, for example, pages 4-5, paragraphs 46, 49-50, 55-59, etc. Applicants similarly amended independent claims 14, 15, 20, 24, 26, 27, 28, and 29.

The Examiner rejected claims 1-2, 4-5, 7-15, 20-24 and 26-37 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,725,053 to Rosen (Rosen) in view of U.S. Patent Publication No. 2005/0124365 to Balasuriya (Balasuriya). The Examiner also rejected claims 3 and 25 under 35 U.S.C. 103(a) as being unpatentable over Rosen in view of Balasuriya and further in view of U.S. Patent No. 6,477,150 to Maggenti. Applicants respectfully traverse this rejection.

Applicants' independent claim 1 recites a combination including, for example, "including, in a message generated in accordance with a session description protocol, floor status information of a data communication media in relation to a party of a communication session, the message configured as at least one of an offer and an

answer of the session description protocol associated with a session initiation, the floor status information configured as a value representing at least one of a floor granted, a floor taken, and a port number; and sending the session description protocol message including the floor status information between a communication system and a user equipment such that sending additional messages to communicate the floor status information between the communication system and the user equipment is avoided."

Accordingly, floor status information (e.g., floor granted, floor taken, etc.) is included in a session description protocol (SDP) message, which is used to communicate an offer and/or an answer of the SDP associated with a session initiation, thus avoiding having to send additional message, e.g., RTCP messages, to separately communicate such status information between a user equipment and a communication system:

[0046] The embodiments are based on the realisation that it might be advantageous if use of a specific state message could be avoided. For example, it might be advantageous to avoid using Real-time Transport protocol Control Protocol (RTCP) messages for communication of floor status information at the session set-up phase. In the following exemplifying embodiments, instead of having to indicate the initial floor control status in Push-to-talk session in a separate RTCP packet, the status is can be indicated in a Session Description Protocol (SDP) offer or answer. The provision of status information may be done by adding a single extension parameter to a SDP message with fixed token values describing the possible floor control states, such as floor granted or floor taken. Thus the SDP message may be used for exchange of media and floor control parameters.

...

[0049] After registration a user may activate the PoC service, for example by pressing a Push-to-talk key on his mobile station at step 104. An offer is then sent from the calling party user equipment to the PoC application server at step 106. The offer may then be forwarded from the PoC application server at step 108 to the called party user equipment together with an indication regarding the status of the floor. An answer to the request is forwarded from the PoC application server at step 110 to the calling party user equipment, this message also including an indication

regarding the status of the floor. It shall be appreciated that the answer may be communicated even if no answer has been yet received from the called party.

[0050] Instead of sending any initial RTCP floor granted (on caller side) and/or floor taken (on the called side) or similar messages, SDP messages may be used for the communication of the floor status information. The SDP answer on the calling party side at step 110 may carry information that the floor has been granted. The SDP offer on called party side at step 108 can be used to carry information that the floor has been taken. For this purpose a new attribute may be defined for the SDP so as to carry the floor control state. This may be done, for example, by means of the SDP extension model. The attribute may have enumerated values corresponding to the possible floor control states. The semantics of the attribute may be such that it is capable of informing the receiver of the initial state of the floor for the offered/answered media in question. The initial state indicated this way may be overridden by any subsequent RTCP floor control messages.

(US 2005/0135374, pages 4-5, paragraph 46)

The Examiner admitted, with respect to independent claim 1, that "Rosen does not expressly call for: session description protocol or the floor status information configured as a value representing at least one of the floor granted, a floor taken and a port" (Final Action, page 2). It follows that Rosen also does not disclose a session description protocol message that includes floor status information, and therefore Rosen does not disclose at least the features of "sending the session description protocol message including the floor status information between a communication system and a user equipment such that sending additional messages to communicate the floor status information between the communication system and the user equipment is avoided," as recited by Applicants' independent claim 1.

The Examiner, however, relied on Balasuriya in support of the rejection of claim

1.

Balasuriya describes floor control in a Push-to-Talk system in which:

A mobile station (203) may transmit a floor request message or messages and request multiple floors. Each floor may correspond to a media type having multiple media streams. A PoC server (201) assigns a priority to media types and/or media streams such that for example, a mobile station (203) may have a floor to transmit a video clip having audio and video streams to a talk group (207), and a member of the talk group may have a floor to transmit audio voice commentary on the media to the talk group (207). The embodiments of the present invention enable multimedia communication use cases without the need for duplication of the state machine at each node, thereby conserving resources.

(Balasuriya, Abstract)

Balasuriya further describes that floor messages may be passed between a mobile station and a server, and that different types of communication protocols, including session description protocol (SDP) and RTCP, may be used in floor control messaging and server/mobile station bidirectional communications:

[0028] FIG. 5, provides further details of the messaging that occurs between the mobile station 203, the server 201, and other mobile stations of talk group 207. There are several floor control messages that are passed between a mobile station and the server 201 for example; Floor Request, Floor Grant, Floor Release, Floor Idle, Floor Taken, Floor Deny, and Floor Revoke. The transport protocols used in floor control messaging and server/mobile station bidirectional communications are Internet Protocols (IP) and utilize the User Datagram Protocol (UDP), and Real Time Protocol (RTP) for media. The floor control aspect of the server 201 is accomplished using RTP Control Protocol (RTCP), Session Initiation Protocol (SIP) and Session Description Protocol (SDP). For example, a portion of an RTCP header may be used for exchanging floor control information between a server and talk group mobile stations. More particularly the ASCII string of the RTCP header may be utilized for this purpose.

(Balasuriya, pages 2-3, paragraph 28)

Balasuriya, however, does not describe that floor status information, such as floor grant, floor taken, etc., are included with an SDP message, nor does Balasuriya

describe communicating floor status information, included in a first message type, to avoid sending additional messages to communicate the floor status information between the server and the mobile station. Accordingly, Balasuriya too fails to disclose or suggest at least the features of "sending the session description protocol message including the floor status information between a communication system and a user equipment such that sending additional messages to communicate the floor status information between the communication system and the user equipment is avoided," as recited by Applicants' independent claim 1.

Because neither Rosen nor Balasuriya discloses or suggests, alone or in combination, at least the features of "sending the session description protocol message including the floor status information between a communication system and a user equipment such that sending additional messages to communicate the floor status information between the communication system and the user equipment is avoided," Applicants' independent claim 1, and the claims depending from it, are patentable over the cited art.

Independent claims 14, 15, 20, 24, 26-29, 32, and 35, recite "sending the session description protocol message including the floor status information between a communication system and a user equipment such that sending additional messages to communicate the floor status information between the communication system and the user equipment is avoided," or similar language. For reasons similar to those provided with respect to independent claim 1, Applicants' independent claims 14, 15, 20, 24, 26-29, 32, and 35, and the respective claims depending from them, are patentable over the cited art.

CONCLUSION

On the basis of the foregoing amendments, the pending claims are in condition for allowance. It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper. Applicants ask that all the claims be allowed.

No additional fees are believed to be due, however the Commissioner is authorized to charge any additional fees or credit overpayments to Deposit Account No. 50-0311, reference No. 39700-615001US. If there are any questions regarding this reply, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,


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